

## U N D E R S T A N D I N G

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BETWEEN THE DEPARTMENT OF TRANSPORTATION OF THE UNITED STATES OF AMERICA AND THE MINISTRY OF TRANSPORT AND TELECOMMUNICATIONS OF THE SOCIALIST REPUBLIC OF ROMANIA CONCERNING RESEARCH COOPERATION IN THE FIELD OF TRANSPORTATION

- I. This Understanding between the Department of Transportation of the United States of America and the Ministry of Transport and Telecommunications of the Socialist Republic of Romania ( hereinafter referred to as the parties ), in accordance with Section II ( 7 ) of the Program of Exchanges in Educational, Scientific, Cultural, and Other Fields between the United States of America and the Socialist Republic of Romania in 1971 - 1972 signed in Bucharest on November 27, 1970, provides for a program to achieve mutually advantageous cooperation in transportation research and development. The aim of the program will be to promote cooperation between the transportation specialists of the parties in finding solutions to problems of mutual concern, and to improve transportation systems and techniques without the cost and wastefulness of parallel national efforts.
- II. To realize the benefits of research cooperation pursuant to this Understanding the parties agree that :
  - ( a ) They will undertake to develop research cooperation projects in such fields of transportation as are identified in paragraph III below or as may subsequently be agreed.
  - ( b ) Each research cooperation activity will be the subject of a separate arrangement establishing the information and experience to be exchanged, and, to the extent applicable, the cost-sharing or task-sharing involved. Such arrangements will become part of this Understanding.

- (c) Cooperative activities under this program will be contingent upon the availability of funds.
- (d) To implement and facilitate this program, each party will designate an appropriate official as its Program Coordinator. The Program Coordinators will be authorized by each party to :
  - (1) Conclude cooperation arrangements ;
  - (2) Provide a point of contact for the other party in working out the details of cooperative activity ; and
  - (3) Make periodic reviews of the status and achievements of the overall program and its component parts at least once annually.
- (e) Any conditions relating to technical documents, patents and other technical data and experience which restrict their use by the receiving party or restrict their delivery to a third country shall be respected by the parties.

III. The following have been identified as the initial areas of mutual interest :

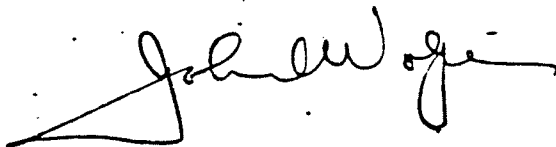
- (a) Wheel and axle problems, including improved flaw detection and new designs for avoiding defects.
- (b) Structural components of rail freight cars, durability and reliability of car trucks, under frames and floors.
- (c) Development and use of train braking systems.
- (d) Efficiency and economics of locomotive power and engine types.
- (e) Uses and instrumentation of rail test cars particularly for separating effects of rail and track conditions from effects of car dynamics.
- (f) Forces involved in heat expansion of continuous welded rail resulting in buckling or kinking of rails.
- (g) Standards for construction, repair, maintenance and inspection of rail track and roadway.

- (h) Automatic selection and handling of cars in marshalling yards.
- (i) Intermodal transportation involving containers (high capacity, refrigerated, etc.).
- (j) Skid resistance and problems of motor vehicle - road interaction.
- (k) Motor vehicle braking systems.
- (l) Methods for prompt repair and patching of highway pavement.
- (m) Psycho, physiological, and other human factors related to the work environment.

IV. This Understanding, effective upon signature, shall remain in force for a period of five years and for additional two-year periods thereafter, unless either of the parties terminates the understanding before the expiration of each period of validity upon six months notice.

This Understanding was executed in two original copies, in the English and Romanian languages, at Bucharest, November 1, 1971.

FOR THE  
DEPARTMENT OF TRANSPORTATION  
OF THE UNITED STATES OF AMERICA



FOR THE  
MINISTRY OF TRANSPORT AND  
TELECOMMUNICATIONS OF THE  
SOCIALIST REPUBLIC OF ROMANIA

